

L'OREAL ENSURES ULTRAPURE WATER QUALITY CONFIDENCE WITH PURELAB™ CHORUS 1 COMPLETE

CASE STUDY | Scientific



| The clients needs

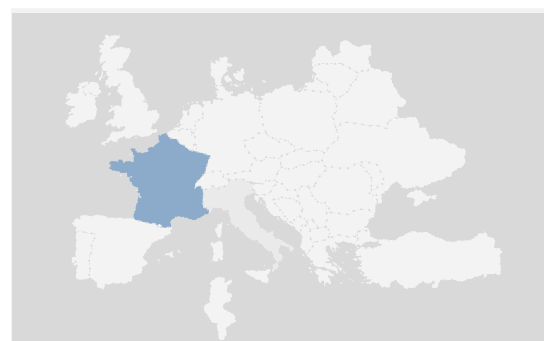
With purified water quality essential for the formulation of its ingredients, global cosmetics manufacturer L'Oreal has utilised Veolia's ELGA Purelab™ Chorus 1 Complete purified water solution to ensure full traceability, quality assurance and compliance for a new R&D laboratory at its Aulnay-sous-Bois site in France.

An important element of the work of the facility, located in the north-east of Paris, is the formulation and testing of ingredients. Cosmetic ingredient formulation demands absolute confidence in water purity, as even trace organic contamination can affect product stability, efficacy testing, and regulatory compliance. The new research and development (R&D) laboratory where this work is conducted required a solution to deliver consistent quality ultrapure Type I water. However, traditional periodic water testing presented an unacceptable risk as contamination could go undetected until after the critical work was completed. Any proposed solution also needed to accommodate variable water volume demands and occupy minimal laboratory space.

| The solution

Due to its long-term relationship with Veolia, L'Oreal contacted the water treatment specialist to understand what was available that could meet its needs. Following a full review of the requirements, the Veolia team recommended the Purelab™ Chorus 1 Complete.

The bench-mounted unit is capable of reliably generating Type I purified water from potable water and features integrated real-time Total Organic Carbon (TOC) monitoring. The system analyses the TOC level of the purified water before distribution to deliver continuous verification without requiring external analysers or additional laboratory space. The Purelab™ Chorus 1 Complete unit achieves ionic purity of 18.2 MΩ.cm. It also eliminates ionic byproducts of the photo-oxidation of organic molecules, thereby lowering the TOC below 5 ppb. The system maintains a reserve of 5 to 10 litres of ultrapure water, ensuring immediate availability of high-quality water regardless of usage patterns. In addition, the compact design meant the unit integrated seamlessly onto a standard 70 cm deep laboratory bench.



France



Key Figures

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“Consistently high-quality purified water and continual water quality monitoring are essential for our R&D as it allows the formulation and testing to be conducted with confidence. With real-time verification of the TOC we know that any contamination will be detected before it can undermine the experimental process.

Jean-Baptiste BOITTE, Lab manager at L'Oreal

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| Results

Furthermore, the Purelab™ Chorus 1 Complete installed in the L'Oreal laboratory is connected to Veolia's Hubgrade digital monitoring system to provide a complete overview of system performance. Veolia currently has the service and maintenance contract for water treatment systems on all L'Oreal sites. Hubgrade supports this work by providing secure remote access to real-time and historic performance data. With Hubgrade monitoring, we can optimize consumables during changes, continuously monitor water quality, and obtain data during audits.

“The implementation of the Purelab™ Chorus 1 Complete at this site demonstrates the benefits of integrated continuous water quality monitoring for highly sensitive applications such the R&D work carried out in the L'Oreal laboratory.

Sofiane Arroudj, Sales Representative at Veolia

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